IDEM
Clean Air Bulletin

January 2001 *Volume 3, Issue 2*

Indiana Reducing Styrene Emissions

There will be less styrene over Indiana since the Air Pollution Control Board passed a rule on October 4, 2000. The rule will restrict the styrene content in resins and gel coats used in the fiber reinforced plastics fabricating industry and require low emitting application technologies where possible. Many industries are already using these pollution prevention techniques and implementation of the rule may reduce emissions up to 40 percent more. This is the first time IDEM passed a rule for hazardous air pollutants before the United States Environmental Protection Agency (U.S. EPA) has completed its regulations to establish the maximum achievable control technology for the industry. These regulations are expected to be finalized in the spring of 2001.

Many manufacturers of RV parts, such as Global Glass in Elkhart, IN, now use new technologies and application techniques to reduce emissions.

IDEM moved more quickly because of the large concentration of fiberglass manufactureres in Indiana, especially in the Elkhart County area, and because information came to light that emissions from those operations were larger than had previously been thought. Additionally, in 1999, the Indiana General Assembly passed a law requiring the

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Power Plants Generating Interest

Indiana, and other Midwest states, have been receiving increasing numbers of applications for electricity generating projects, including merchant power plants. State environmental agencies are working to address the environmental issues presented by these projects. A merchant power plant is a plant whose output is sold on the wholesale power market. States from the Atlantic Ocean to the Rocky Mountains are all part of the East Coast electrical grid that supplies power to homes and businesses. The power produced by merchant plants can be used to support this grid during times when demand for energy is higher than normal.

Simple or combined cycle? For merchant power plant basics, turn to page 6...

IDEM is aware of concerns about merchant power plants including the health effects of air emissions. Citizens are concerned about a variety of other issues including the siting of new facilities in undeveloped rural areas, property values, light and noise. IDEM does not have direct legal authority to address the siting of the facility in its review of air permit applications. IDEM advises residents to contact city and county government officials with questions and comments about local zoning decisions.

Other state agencies are also working to address the issues raised by the merchant power plants. The Indiana Utility Regulatory Commission

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IN THIS ISSUE

From The Assistant Commissioner ...

As we close out 2000 and look ahead to 2001, it's hard not to reflect a little on accomplishments of the past year and the challenges ahead. This issue of the Clean Air Bulletin highlights some of our more recent activities: adoption by the Air Pollution Control Board of a rule for the fiberglass industry that sets the strictest standards in the nation for emissions of styrene; becoming functionally bilingual in our asbestos and lead accreditation programs to serve our customers better and ensure safer asbestos and lead removal for both workers and building occupants; review of the many applications for power projects and providing the best information we can to the public to enhance their ability to participate in the air permit review process.

We have many challenges ahead for 2001, and many opportunities to work with Indiana citizens, businesses and local governments on issues that affect our air quality. One of the most significant projects is the statewide nitrogen oxides rule. This rule will require substantial reductions in NOx from power plants, large industrial boilers and cement kilns. By 2007, it will decrease emissions by over 30 percent from what they would have been without this rule. With similar rules being adopted in the states around us, this rule will make substantial improvements in air quality across the state. The Indiana Air Pollution Control Board will consider this rule at its February meeting and we anticipate final adoption of the rule in the late spring. On our website, you can find not only the draft rule, but background information, comments we've received on the rule and information from the U.S. EPA.

I look forward to working with all of you on this important effort as well as many others.

--Janet McCabe,
Assistant Commissioner,
Office of Air Quality

Asbestos/Lead Section Becomes Bilingual

■ Communicating in Spanish and English

Over the past few years, the Asbestos/Lead Section in the Office of Air Quality has seen a dramatic increase in the number of Hispanic applicants applying for licenses to work with and remove asbestos. According to section chief Frank Profit, "many of our walk-in customers are Hispanic, some of whom only speak Spanish. This creates difficulty for both air staff and the individual applying for a license."

In an effort to accommodate all of its customers, the Asbestos/Lead Section has made several efforts to meet the customers' needs. About three years ago, the applications and outreach materials were translated into Spanish. In the summer of 1999, the section hired Barbara Gordon as a receptionist. Barbara is bilingual. "Barbara has been a great addition to our staff," said Mr. Profit. "She has given the Agency an opportunity to meet the needs of our Hispanic customers in many ways. Not only does she provide a means of verbal communication between our Hispanic customers and staff, but she helps translate letters, pamphlets, and other documents that the section uses in its daily activities."

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Styrene cont'd from page 1

adoption of consistent industry-wide rates by the end of 2000.

During the rulemaking process, IDEM held several public meetings in Goshen, Indiana and worked with industry representatives, environmental advocates, trade associations, county health departments, and the Clean Manufacturing and Safe Materials Institute.

U.S. EPA classifies styrene as a hazardous air pollutant (HAP) and a highly reactive volatile organic compound (VOC). VOCs play a significant role in ground-level ozone formation. The largest emitters of styrene in Indiana are manufacturers who use resins and gel coats containing styrene to produce reinforced plastic products, such as boats, recreational vehicles, bathtubs, and shower stalls. According to the Toxic Release Inventory for 1997, over 2,000 tons of styrene were emitted by Indiana companies required to report emissions. Seventy-five percent of those emissions occurred in the northern part of the state. Recent advances in application techniques and lower styrene content materials allows manufacturers to significantly reduce their emissions. This rule will assure that the same emission reduction techniques will be required of all companies.

For several years, IDEM has been working with the reinforced plastics composites fabricating industry to reduce styrene emissions from their operations. IDEM's recent activities include:

- *establishing emission reduction requirements consistent with the anticipated maximum achievable control technology for all new fiber reinforced plastic sources;*
- *supporting industry efforts to develop and implement new pollution prevention technologies and emission reduction techniques;*
- *providing guidance to accurately calculate emissions;*
- *ensuring compliance through assistance, inspections, and monitoring;*
- *sharing information with the industry through workshops, fact sheets, Web sites, meetings, mailings, and on-site assistance; and*
- *working with the Clean Manufacturing Technology and Safe Materials Institute and the Composite Fabricators Association.*

Styrene: What is it? What could it do to me?

Styrene is a colorless, flammable, oily liquid that evaporates quickly. It has a sweet odor in low concentrations and a strong, penetrating disagreeable odor in high concentrations.

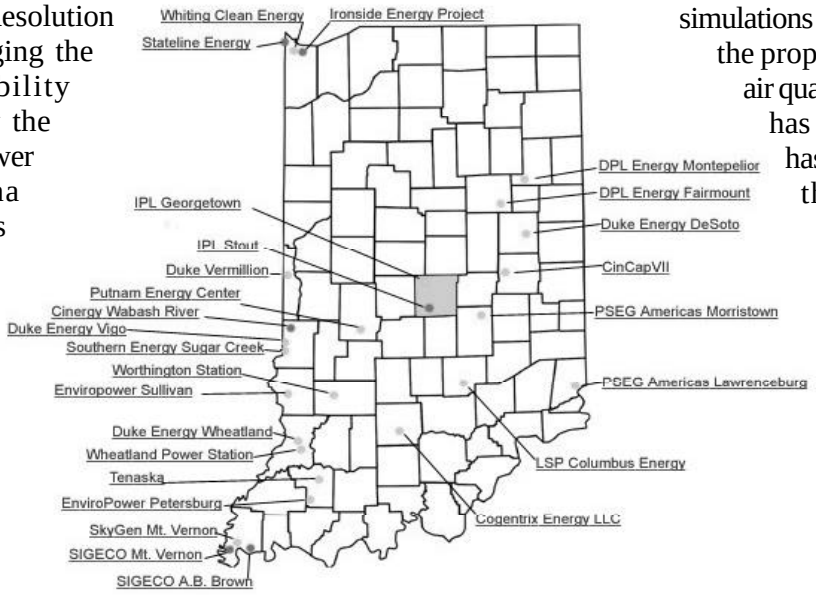
Cigarette smoke and automobile exhaust contain small amounts of styrene. Exposure to styrene is most likely to occur from breathing indoor air that is contaminated with styrene vapors from building materials, tobacco smoke, and consumer products.

Breathing styrene vapors can have a wide range of health effects, depending on the person. It affects the nervous system and may cause depression, concentration problems, muscle weakness, tiredness and nausea. Breathing styrene vapors can also cause eye, nose and throat irritation. The International Agency for Research on Cancer has determined that styrene is a possible carcinogen in humans.

Merchant cont'd from page 1

(IURC) oversees more than 700 utilities operating in Indiana. The IURC evaluates the need for additional electrical capacity, and conducts hearings to get citizen input. Merchant power plants are required to have either an approval from the IURC or a determination that they are exempt from IURC regulations prior to operating. The Indiana Office of the Utility Consumer Counselor represents the public interest regarding electric and other utilities before the IURC.

During the 2000 session of the Indiana General Assembly, Senate Concurrent Resolution 34 was adopted urging the regulatory flexibility committee to study the topic of merchant power plants. The Indiana General Assembly is expected to introduce legislation in the upcoming session.



This map shows sources that have submitted applications for merchant power plants to IDEM. Some of these have IDEM-approved permits while others are under review. For additional information, see our website at www.state.in.us/idem/oam/permits/powerplt/.

Air pollution control requirements for utility projects

IDEM carefully reviews air permit applications on a case-by-case basis to ensure that the applicant will comply with all technical and health-based standards established by law. New sources of air pollution are required to get a construction permit prior to installing any facility that has the potential to emit significant amounts of air pollution. State and federal laws establish technical and health-based standards that utilities must satisfy to obtain a permit. Applicants must receive a construction permit prior to construction and operation. Unless they voluntarily agree to limit their emissions to certain thresholds, they also must apply for a Title V Operating Permit within 12 months of starting operations. Most utility projects also receive a permit under the Acid Deposition Control Program. If the applicant demonstrates that the proposed facility will comply with these requirements, IDEM is legally obligated to issue a permit. The permit lists the covered facilities, identifies the applicable air pollution control standards, establishes how the facility will comply with those standards, and contains provisions for monitoring, record keeping and reporting that are adequate to demonstrate compliance on an ongoing basis. In addition to the requirements contained in the permit rules, these projects are also subject to additional standards called new source performance standards (NSPS) and are evaluated for air toxics.

Air quality impact

For proposed plants over a certain size, IDEM uses computer simulations to predict the impact that the proposed plant will have on air quality. The analyses IDEM has done for applications it has already reviewed show that the local air will continue to meet the health-based national ambient air quality standards established by U.S. EPA. IDEM estimated the maximum amount of pollutants emitted by the plant would be less than five percent of these standards. IDEM has used similar methodology to address pollutants that currently do not have established health-based standards, such as air toxics. IDEM will use this analytical technique for pending and future applications to evaluate the potential impacts on air quality.

What happens after the permit is issued?

The Office of Air Quality inspects new plants soon after they begin operations to ensure compliance with their air permit. Air permits for utility projects require continuous emissions monitoring of criteria pollutants. IDEM staff are present when these systems are tested to make sure they meet state and federal performance standards. IDEM receives quarterly reports of the continuous monitoring data, fuel usage, and other compliance-related information required by the permit. IDEM has the authority to level civil penalties for violations of the permit, including fines and, if necessary, revoke the permit.

Rules Highlights

The rule readoption rulemaking

Background: In 1995, the state legislature amended the Indiana Code at IC 13-14 -9.5 to provide for the expiration and readoption of administrative rules. A rule adopted under a provision of IC 13 and in effect on December 31, 1995, expires on January 1, 2002. All rules adopted after that date under IC 13-14-9, with some exceptions listed in IC 13-14-9.5, expire on January 1 of the seventh year after the year each rule takes effect.

In this first rulemaking under IC 13-14–9.5, all rules in Title 326 of the Indiana Administrative Code requiring readoption, were opened for readoption regardless of their initial effective date. Because all the rules commented on have differing actual expiration dates, not all rules commented on will be readopted within this initial readoption rulemaking. Rules with effective dates later than 1997 will be readopted in future rulemakings.

Many rules received no comments and will be readopted administratively. Major rules commented on include the following:

- *326 IAC 1-6 Malfunctions.*
- *326 IAC 2-6 Emission Reporting.*
- *326 IAC 4-2 Incinerators.*
- *326 IAC 6-3 Process Operations.*
- *326 IAC 6-4 Fugitive Dust Operations.*
- *326 IAC 8-7 Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties.*
- *326 IAC 8-9 Volatile Organic Liquid Storage Vessels.*
- *326 IAC 8-11 Wood Furniture Coatings.*
- *326 IAC 8-12 Shipbuilding or Ship Repair Operations in Clark, Floyd, Lake, and Porter Counties.*
- *326 IAC 9-1 Carbon Monoxide Emission Limits.*
- *326 IAC 10-1 Nitrogen Oxides Control in Clark and Floyd Counties.*
- *326 IAC 18-2 Asbestos Training Courses.*
- *326 IAC 19-1 Employee Commute Options.*

Comments received on the emission reporting rule, the process weight rule, the fugitive dust rule, the shipbuilding and ship repair rule and the nitrogen oxides rule will be addressed in separate ongoing rulemakings initiated prior to the rule readoption rulemaking. Any rule that is listed above that is not readopted by January 1, 2002 will expire on that date.

Status: Second Notice of Comment Period ended on October 30, 2000. Renoticed for Second Comment Period on January 1, 2001.

Citation: Notice #00-44 (APCB)

Prevention of significant deterioration (PSD) corrections

Background: The prevention of significant deterioration (PSD) program requires review of major new sources of air pollution and major modifications of existing sources located in areas where air quality meets health-based standards. This review insures that the construction and subsequent operation of the source will comply with best available control technology and not adversely impact the national ambient air quality standards. IDEM is currently U.S. EPA's delegated authority for implementation of the PSD permit program.

Rather than being its delegated agent, IDEM intends to seek approval of its PSD program from U.S. EPA. There are several differences between the federal and state rules that need to be addressed for the state to seek approval, including federal definitions and portions of the federal rule that are not included in the state rules, and dissimilarities between federal and state definitions. The purpose of this rulemaking is to amend Indiana's PSD rules to address any deficiencies that would prevent U.S. EPA approval of the state PSD rules. Having an approved program would mean that Indiana's permit program is independently authorized, and all issues are resolved within Indiana's administrative legal system. U.S. EPA would still review and comment on proposed permits, and could seek to revoke approval if Indiana failed to implement the program in accordance with federal guidance.

Rules cont'd on page 6

Rules cont'd from page 5

Status: Adopted by the Air Pollution Control board on December 6, 2000.

Citation: LSA Notice # 99-264.

Prevention of significant deterioration (PSD) pollution control exclusion

Background: The U.S. EPA has an established policy that excludes certain pollution control projects from permitting requirements on a case-by-case basis. Most pollution control projects are not subject to permitting requirements because they result in a reduction in emissions, not an increase. However, some projects could result in a collateral increase of some pollutants. An example would be the use of combustion equipment to control VOC emissions. While the VOC emissions are greatly reduced, there may be an increase in nitrogen oxide emissions related to the combustion process. In 1992, U.S. EPA promulgated a specific pollution control exclusion for electric utility generating units. This exclusion applied only to utilities, although at the time of the federal rulemaking, U.S. EPA indicated that it would consider the exclusion for other source categories in future rulemakings. U.S. EPA stated that pollution control project exclusions involving other source categories could continue on a case-by-case basis and issued a guidance memorandum in 1994 addressing the case-by-case exclusions. This guidance memorandum outlines the types of projects that may qualify for exclusion as a pollution control project, certain criteria that must be satisfied, and the procedural steps that state permitting authorities should follow in issuing an exclusion. Indiana's existing permit modification process would be used to fulfill the federally required procedures.

Status: Effective November 22, 2000

Citation: LSA Notice #00-42(F)

A status report of all rulemakings is available at www.state.in.us/idem/oam/airboard. Access the Indiana Register online at www.state.in.us/legislative.

Merchant Power Plants 101:

Merchant plants are built as either a simple cycle or a combined cycle plant. Simple cycle plants are known as "peaking" plants. Many peaking plants use natural gas powered turbines and typically locate near the intersection of electric transmission lines and natural gas pipelines.

Combined cycle plants are also called base load plants. They are much larger than peaking plants. Base load plants use turbines combined with a steam boiler to produce electricity. The turbines may be powered by natural gas, coal or other fuels.

Simple cycle power plant

Combined cycle power plant

Gas Cap Give-Away in Northwest Indiana

■ Partners for Clean Air Sponsors New Program

More than 2,700 gas caps fail the Clean Air Car Check Emission Test in Northwest Indiana each year. The gas cap test is the first part of the emissions test. If the gas cap fails or is missing, the vehicle owner is asked to replace the cap and return for further testing.

Envirotest employee tests a vehicle's gas cap for leaks.

Generally, the caps fail because they don't seal properly, allowing VOCs to escape from the vehicle fuel tank. VOCs are a major component of summer-time smog.

In an effort to promote improved air quality, Amoco, a participating member of the Northwest Indiana Partners for Clean Air program, has donated 3,500 gas caps to be provided, free of charge, to motorists whose vehicles fail the gas cap portion of the Northwest Indiana Clean Air Car Check. The new gas caps are expected to fit at least 80 percent of the vehicles that fail the gas cap portion of the test.

Representatives from Amoco, Envirotest, and IDEM display a selection of gas caps donated by Amoco.

Envirotest, also a participating member of the Partners for Clean Air program, is hosting the gas cap give-away. Envirotest technicians will replace failed gas caps on the spot. This program contributes to cleaner air not only by assuring that cars have caps that seal properly, but also by reducing the number of trips motorists need to make to the test sites.

View Permits Via the Web

■ IDEM's New Permit Tracking System

The Permits Branch recently launched a new, user-friendly website for citizens to view and download air permit documents and related information. Permit information has been available online for several years at the U.S. EPA website, but the Office of Air Quality site now features several improvements including data not previously available. The site features local library locations where hard copies of the permit applications can be viewed, public hearing details, and permit applications that have been received, but have not reached public notice status.

The site offers users a wide variety of options for viewing permit information. Each option allows downloading of draft or final permit documents. Choose to:

All Permits: View a list of all permit activity. Sort by source name, county, or permit level.

Permit Levels: View specific air permitting levels, such as Title V or new construction permits.

Permit Milestones: View the permitting process in four distinct stages: received, public notice, proposed notice, and issued. Many applications go through all four stages, while a minor amendment or process change may be issued with no public or U.S. EPA participation, moving from the received stage to the issued stage.

Recent Permits: View permit milestones over the past seven to 90 days. For example, find information on permit applications that have been received in the past week; or proposed permits that are currently on public notice, or permit decisions that have been issued in the past 90 days.

The site features a graphical tour and online support to aid navigation. To view the site, go to www.state.in.us/idem/oam/permits/index.html and follow the link to Air Permits Online.

AIR PERMITS ONLINE

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Good-bye, OAM.
Hello, OAQ!
With the new year, the Office of Air Management got a new name: OAM is now the ***Office of Air Quality (OAQ).*** Look for the change in this issue.

Bilingual cont'd from page 2

Barbara, originally from the Republic of Panama, has previously been employed with the Panama Canal Commission and both the Indianapolis and Speedway Public School Systems.

The third element of OAQ's effort to become fully bilingual relates to training courses. IDEM has approved several Spanish language training courses and audits these classes with the help of the Language Training Center. Currently, Indiana is the only state within Region V with the capability to monitor and audit any Spanish language training course. Further, the section now has the capability of testing Spanish applicants for licensing who speak or read Spanish only.

The Asbestos/Lead Section will continue its efforts to meet the needs of its customers and the citizens of Indiana.

NEXT TIME...

Look for these topics in the next issue of the Clean Air Bulletin:

--CAM Plans

--Emissions Reporting

--Fugitive Dust

--Ozone Season Summary

--Regional Haze